

DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

DIRECTOR'S OFFICE

CONSTRUCTION CODE

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(By authority conferred on the director of the department of licensing and regulatory affairs by section 4 of 1972 PA 230, MCL 125.1504, and Executive Reorganization Order Nos. 2003-1, 2008-4 and 2011-4, MCL 445.2011, 445.2025 and 445.2030)

R 408.30901a, R 408.30912a, R 408.30923a, R 408.30928a, R 408.30935a, R 408.30936a, R 408.30945a, R 408.30946, and R 408.30948, of the Michigan Administrative Code are amended and R 408.30915a, R 408.30916, R 408.30018a, R 408.30947, and R 408.30948a are rescinded as follows:

PART 9A. MECHANICAL CODE

AMENDMENTS AND ADDITIONS TO BASIC MECHANICAL CODE

R 408.30901a International mechanical code; adoption by reference.

Rule 901a. The provisions of the international mechanical code, ~~2012~~**2015** edition, except for sections 102.10, 102.11, 103.2, 103.4, **106.1.1, 106.1.2**, 106.5.1 to 106.5.3, 107.2.5 to 107.2.5.3, 109.2 to 109.7, ~~1011 to 1011.2~~, 1101.10, and appendix B govern the construction, alteration, relocation, demolition, use, and occupancy of buildings and structures. With the exceptions noted, the code is adopted in these rules by reference. All references to the International Building Code, International Residential Code, International Energy Conservation Code, National Electrical Code, International Mechanical Code, and International Plumbing Code mean the Michigan Building Code, Michigan Residential Code, Michigan ~~Uniform~~ Energy Code, Michigan Electrical Code, Michigan Mechanical Code, and Michigan Plumbing Code respectively. The code is available for inspection at the ~~Okemos office of the Michigan department of licensing and regulatory affairs, bureau of construction codes~~ **Department of Licensing and Regulatory Affairs, Bureau of Construction Codes, 611 W. Ottawa St., 1st Floor Ottawa Building, Lansing, MI 48933**. The code may be purchased from the International Code Council, ~~through our the bureau's website at www.michigan.gov/bcc, 500 New Jersey Avenue, N.W. 6th Floor, Washington, D.C. 20001, or from the Michigan Department of Licensing and Regulatory Affairs, Bureau of Construction Codes, 2501 Woodlake Circle, Okemos, Michigan~~ at a cost as of the time of adoption of these rules of ~~\$71.00~~ **\$76.00** each.

R 408.30912a Enclosed parking garages.

Rule 912a. Section 404.1 of the code is amended to read as follows:

404.1. Enclosed parking garages. Mechanical ventilation systems for enclosed parking garages are not required to operate continuously where the system is arranged to operate

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automatically upon detection of carbon monoxide (CO) not to exceed 25 parts per million (ppm) and nitrogen dioxide (NO₂) not to exceed 3 ppm by approved automatic detection devices. ~~Upon activation such systems shall operate for 30 minutes.~~

404.1.1 Testing. Testing of detection devices shall be per manufacturer's installation instructions. All detectors shall be calibrated per the manufacturer's instructions at an interval not to exceed 1 year.

R 408.30915a ~~Scope of article; adoption by reference~~ **Rescinded.**

~~Rule 915a. Section 601.1 of the code is amended to read as follows:~~

~~601.1. The provisions of this article govern the construction, installation, alteration, maintenance, and repair of duct systems. Duct systems shall be in compliance with the provisions of the code, the provisions of NFPA 90A-2012 and NFPA 90B-2012, the standards of the national fire protection association, and the provisions of air conditioning contractors of America (ACCA) manual D-2009, manual J-2006, manual N-2009, and manual Q-1990, as listed in chapter 15.~~

R 408.30916 ~~Duct construction~~ **Rescinded.**

~~Rule 916. Table 603.4 of the code is amended to read as follows:~~

~~TABLE 603.4~~
DUCT CONSTRUCTION MINIMUM SHEET METAL THICKNESSES FOR SINGLE DWELLING UNITS

DUCT SIZE	GALVANIZED		Approximate Aluminum B&S Gauge
	Minimum thickness (inches)	Equivalent galvanized gauge no	
Round ducts and enclosed rectangular ducts 14" or less Over 14"			
	0.013	30	26
	0.016	28	24
Exposed rectangular ducts 14" or less Over 14"			
	0.016	28	24
	0.019	26	22

R 408.30918a ~~Registers, grilles, and diffusers~~ **Rescinded.**

~~Rule 918a. Section 603.18.2 of the code is amended to read as follows:~~

~~603.18.2. Prohibited locations. Diffusers, registers, and grilles shall be prohibited in the floor or its upward extension within toilet and bathing rooms required by the Michigan building code to have smooth, hard, nonabsorbent surfaces.~~

~~Exception: Dwelling units. Within dwelling units, floor registers may be located in a room or space containing water closets, but shall be located a minimum of 3 feet from the water closet.~~

R 408.30923a Equipment installation.

Rule 923a. Sections 301.10.1 is added to the code and section 309.1 of the code is amended to read as follows:

301.10.1. Electrical disconnect. The mechanical contractor shall ensure that all equipment have an electrical disconnect switch on, or immediately adjacent to, the equipment.

309.1. Occupiable space heating system. Interior spaces intended for human occupancy shall be provided with heating facilities capable of maintaining a minimum room temperature of 68 degrees Fahrenheit at a point 3 feet above the floor and 2 feet from exterior walls at the design temperature. The installation of portable space heaters shall not be used to achieve compliance with this section.

Exception:

1. Interior spaces where the primary purpose is not associated with human comfort.
2. **Group F, H, S, and U occupancies.**

R 408.30928a Solid fuel burning equipment.

Rule 928a. Sections 901.5, 929.0, and 929.1 are added to the code to read as follows:

901.5 Solid fuel burning equipment. Solid fuel burning equipment shall be listed and labeled in accordance with section 301.4; **of the code and** installed in accordance with the manufacturer's ~~installation instructions~~, and NFPA 211-2011 **2013** requirements.

929.0 Solid fuel hydronic heaters.

929.1 Solid fuel hydronic heaters ~~must~~ **shall** be listed and labeled, or approved by the code official in accordance with the Michigan mechanical code section 105, or have certificate of acceptability issued by the Michigan construction code commission.

R 408.30935a Commercial kitchens; ventilation.

Rule 935a Sections 506.1, 506.3.6, 507.1, and ~~507.2.6~~ **507.2.6**, of the code are amended and sections 507.16.1.1 is added to the code to read as follows:

506.1. Ventilation requirements for commercial kitchens. Commercial kitchen hood ventilation ducts and exhaust equipment shall be in compliance with NFPA-96-2011 **2014**, **which is** the standard of the national fire protection association listed in chapter 15 **of the code**.

506.3.6 Grease duct clearances. Grease duct systems and exhaust equipment serving a type I hood shall have clearances to combustibles as required by NFPA-96-2011 **2014**, as listed in chapter 15 **of the code**.

Exception: Listed and labeled factory-built commercial kitchen grease ducts and exhaust equipment installed in accordance with section 304.1 of the code.

507.1 General. ~~Commercial kitchen exhaust hoods shall comply with the requirements of this section and NFPA 96-2011, as listed in chapter 15. Hoods shall be type I or type II and shall be designed to capture and confine cooking vapors and residues.~~

~~Exceptions:~~

~~1. Factory built commercial exhaust hoods which are tested in accordance with UL 710-2007, as listed in chapter 15, listed, labeled, and installed in accordance with section 304.1 shall not be required to comply with sections 507.4, 507.7, 507.11, 507.12, 507.13, 507.14, and 507.15 of the code.~~

~~2. Factory built commercial cooking recirculating systems which are tested in accordance with UL 710B-2011, as listed in chapter 15, listed, labeled, and installed in accordance with section 304.1 of the code shall not be required to comply with sections 507.4, 507.5, 507.7, 507.12, 507.13, 507.14, and 507.15 of the code. Spaces in which these systems are located shall be considered to be kitchens and shall be ventilated in accordance with table 403.3. For~~

~~the purpose of determining the floor area required to be ventilated, each individual appliance shall be considered as occupying not less than 100 square feet.~~

~~3. Net exhaust volumes for hoods may be reduced during no load cooking conditions, where engineered or listed multi speed or variable speed controls automatically operate the exhaust system to maintain capture and removal of cooking effluents as required. Reduced volumes shall not be below that required to maintain, capture, and remove effluents from the idle cooking appliances that are operating in a standby mode.~~ **Commercial kitchen exhaust hoods shall comply with the requirements of this subrule and NFPA 96-2014. Hoods shall be type I or type II and shall be designed to capture and confine cooking vapors and residues. A type I or type II hood shall be installed at or above all commercial cooking appliances in accordance with sections 507.2 and 507.3 of the code. When a cooking appliance under a single hood requires a type I hood, a type I hood shall be installed. When a type II hood is required, a type I or type II hood shall be installed. When a type I hood is installed, the installation of the entire system, including the hood, ducts, exhaust equipment, and makeup air system, shall comply with the requirements of sections 506, 507, 508, and 509 of the code.**

Exceptions:

1. Factory-built commercial exhaust hoods that are listed and labeled in accordance with UL 710, and installed in accordance with section 304.1 of the code, shall not be required to comply with sections 507.1.5, 507.2.3, 507.2.5, 507.2.8, 507.3.1, 507.3.3, 507.4, and 507.5 of the code.

2. Factory-built commercial cooking recirculating systems that are listed and labeled in accordance with UL 710B and installed in accordance with section 304.1 of the code, shall not be required to comply with sections 507.1.5, 507.2.3, 507.2.5, 507.2.8, 507.3.1, 507.3.3, 507.4, and 507.5 of the code. Spaces in which these systems are located shall be considered kitchens and shall be ventilated in accordance with table 403.3.1.1. For the purpose of determining the floor area required to be ventilated, each appliance shall be considered as occupying not less than 100 square feet (9.3 m²).

3. When cooking appliances are equipped with integral down-draft exhaust systems and such these appliances and exhaust systems are listed and labeled for the application in accordance with NFPA 96-2014, a hood shall not be required at or above these appliances.

~~507.9~~**507.2.6.** Clearances for type I hood. A type I hood shall be installed with clearances from combustibles as required by NFPA-96-2014**2014** as listed in chapter 15 **of the code.**

507.16.1.1 Smoke test. The field test identified in section 507.16.1 of the code shall be conducted in accordance with the smoke testing procedures established by the bureau of construction codes, which are available at no cost from the bureau's ~~web site~~ **website** at www.michigan.gov/bcc, or; from the Michigan Department of Licensing and Regulatory Affairs, Bureau of Construction Codes, 2501 Woodlake Circle, Okemos, Michigan, 48864 **611 W. Ottawa St., 1st Floor Ottawa Building, Lansing, MI 48933.**

R 408.30936a Scope of article.

Rule 936a. Sections 1001.2 is added to the code and section 1004.3 of the code is amended to read as follows:

1001.2. Boilers. In addition to the other provisions of the code, this article governs the installation, alteration, and repair of water heaters and boilers. The installation of boilers shall be in compliance with the provisions of this code and the Michigan boiler code.

~~1004.3. Working clearance. Clearance shall be maintained around boilers, generators, heaters, tanks, and related equipment and appliances so as to permit inspection, servicing, repair, replacement, and visibility of all gauges. When boilers are installed or replaced, clearances shall be provided to allow access for inspection, maintenance, and repair. Passageways around all sides of the boiler shall have an unobstructed width of not less than 24 inches (610 mm), unless otherwise approved.~~

R 408.30945a Ventilation; exhaust.

Rule 945a. Sections 501.3, 504.4, and ~~504.8~~ **504.8.2, 504.10, and 505.3** of the code are amended to read as follows:

~~501.2.1.1~~**501.3** Exhaust discharge. ~~Exhaust air shall not be directed onto walkways. Exhaust openings shall not terminate within 3 feet of a ventilated section in a soffit. The air removed by every mechanical exhaust system shall be discharged outdoors at a point where it will not cause a public nuisance and not less than the distances specified in section 501.3.1 of the code. The air shall be discharged to a location from which it cannot again be readily drawn in by a ventilating system. Air shall not be exhausted into an attic or a crawl space, be directed onto walkways, or terminate within 3 feet of a ventilated section in a soffit.~~

Exceptions:

- 1. Whole-house ventilation-type attic fans shall be permitted to discharge into the attic space of dwelling units that have private attics.**
- 2. Commercial cooking recirculating systems.**
- 3. When installed in accordance with the manufacturer's instructions and when mechanical or natural ventilation is otherwise provided in accordance with chapter 4 of the code, listed and labeled domestic ductless range hoods shall not be required to discharge to the outdoors.**

504.4 Exhaust installation. Dryer exhaust ducts for clothes dryers shall terminate on the outside of the building, shall not terminate within 3 feet of a ventilated section in a soffit, and shall be equipped with a back draft damper. Screens shall not be installed at the duct termination. Ducts shall not be connected or installed with sheet metal screws or other fasteners that will obstruct the exhaust flow. Clothes dryer exhaust ducts shall not be connected to a vent connector, vent, or chimney. Clothes dryer exhaust ducts shall not extend into or pass through ducts or plenums.

504.8.2 Duct installation. Dryer exhaust ducts shall be supported at 4 foot (1,219 mm) intervals and secured in place. The insert end of the duct shall extend into the adjoining duct or fitting in the direction of airflow. Ducts shall not be joined with screws or similar fasteners that protrude into the inside of the duct.

~~504.8~~ **504.10** Common exhaust systems for clothes dryers located in multistory structures. **When** a common multistory duct system is designed and installed to convey exhaust from multiple clothes dryers, the system shall be engineered by a registered design professional and installed in accordance with the Michigan building **construction** codes.

505.3 Common exhaust systems for domestic kitchens located in multistory structures. When a common multistory duct system is designed and installed to convey

exhaust from multiple domestic kitchens, the system shall be engineered by a registered design professional and installed in accordance with the Michigan building construction codes.

R 408.30946 Alterations and repairs.

Rule 946. Section 1001.3 is added to the code to read as follows:

1001.3. **Alterations and repairs.** Alterations and repairs to boilers shall be in accordance with the Michigan boiler act, 1965 PA 290, MCL 408.751 to ~~MCL 408.776~~.

R 408.30947 ~~Standards.~~ **Rescinded.**

~~Rule 947. Section 1004.1 of the code is amended to read as follows:~~

~~1004.1. (1) Oil fired boilers and their control systems shall be listed and labeled in accordance with UL726-1995 (R2011).~~

~~(2) Gas fired boilers and their control systems shall be listed and labeled in accordance with ANSI Z21.13-2010 or UL795-2006.~~

~~(3) Electric boilers and their control systems shall be listed and labeled in accordance with UL834.~~

~~(4) Boilers shall be installed in accordance with the requirements of ASME CSD-1-2009 and as applicable constructed to ASME boiler and pressure vessel code, sections I or IV; as referenced in chapter 15.~~

~~(5) Boiler controls and safety devices shall be assembled, installed, maintained, and operated in accordance with ASME CSD-1.~~

~~(6) Solid fuel-fired boilers shall be listed and labeled in accordance with UL 2523-2009.~~

R 408.30948 Boiler safety devices.

Rule 948. Section ~~1006.6.1~~ **1006.1.1** is added to the code and 1006.7 of the code is amended to read as follows:

~~1006.6.1~~**1006.1.1** Safety and safety relief inlets. The opening or connection between the boiler and any safety or safety relief valve shall have at least the area of the valve inlet.

1006.7. **Boiler safety devices.** Boilers shall be equipped with controls and limit devices as required by ASME, CSD-1-~~2009~~**2012**, and the manufacturer's installation instructions, and the conditions of the listing. All controls and safety devices shall be tested and maintained in accordance with ASME code CSD-1-~~2009~~**2012**.

R 408.30948a **Gauges Rescinded.**

~~Rule 948a. Sections 1010.1 and 1010.2 of the code is amended to read as follows:~~

~~1010.1 Hot water boiler gauges. Every hot water boiler shall have a pressure gauge and a temperature gauge, or a combination pressure and temperature gauge. The scale on the dial of the pressure or altitude gage shall be not less than approximately 1 1/2 nor more than approximately 3 1/2 the pressure at which the safety relief valve is set.~~

~~1010.1.2 . Pressure and temperature gauge. A thermometer shall be installed and may be in combination with the pressure gauge. The thermometer shall at all times indicate the temperature of the water in the boiler or near the outlet.~~

~~1010.2 Steam boiler gauges. Every steam boiler shall have a water gauge glass and a pressure gauge. The scale on the dial of the gauge shall be graduated to not less than 30 psi and not more than 60 psi.~~

